REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. Claim Status / Explanation of Amendments

Claims 1, 3, 5-6, 8-12, and 16 are pending of which claims 1, 3, 5-6, and 8-10 were rejected and claims 11-12 and 16 were withdrawn from consideration as a result of a previous restriction requirement. Applicants reserve the right to pursue the withdrawn claims in a divisional application.

By this paper, claims 1, 3, 5-6, 8-12, and 16 are canceled without prejudice or disclaimer and new claims 20-22 are added. Applicants reserve the right to pursue the canceled claims in a continuing application. The cancellation of claims 1, 3, 5-6, and 8-10 renders the Section 112 and 102 rejections of these claims moot. Support for new claims 20-22 may be found throughout the application as originally filed including, for example, p. 28, ln. 21 to p. 36, ln. 25 (Examples 7 and 8) along with Figs. 15-1 to 15-6, Figs. 16A-B, and Figs. 17-1 to 17-7.

No new matter will be introduced into this application by entry of these amendments. Entry is respectfully requested. After entry of these amendments claims 20-22 are pending.

B. Rejections under 35 U.S.C. § 102(b)

Claims 1, 3, 5-6, and 8-10 were rejected pursuant to 35 U.S.C. § 102(b) as allegedly being anticipated by Japanese Patent Appl. No. JP 11-274,671 (hereinafter the "JP reference") or U.S. Patent No. 7,273,801 to Seki, et al. (hereinafter "Seki"). [2/12/09 Office Action, p. 3, ¶ 6]. Applicants have canceled claims 1, 3, 5-6, and 8-10 thereby rendering the rejection over the JP reference and Seki moot. However, since analogous elements are recited in new

claims 20-22, the new claims are distinguished over the cited references as follows. In particular, Applicants respectfully submit that the JP reference and Seki fail to disclose a wiring forming method comprising a first step of supplying an insulating liquid, a second step of supplying a conducting liquid to form a conductive pattern on the same layer, a third step of applying the conductive liquid to form a second conductive pattern on the first conductive pattern, and a fourth step of applying the insulating liquid to form a second insulated pattern.

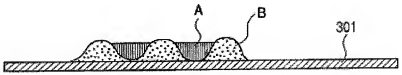
In response to Applicants' December 10, 2008 reply, the Office Action contends that "[t]he cited references teach forming a wiring pattern by applying conductive and insulative materials with computer control" and that "[i]t is well known in the art that automation techniques normal include some type of feedback system and therefore the references met the claimed limitations." [2/12/09 Office Action, p. 4, ¶ 7]. Applicants respectfully disagree and note that the claimed wiring forming method does not merely involve randomly applying conductive and insulating patterns through a computer-controlled system. However, in order to expedite prosecution of this application, Applicants have introduced new claim 20 which further clarifies the wiring forming method.

Applicants' new claim 20 recites:

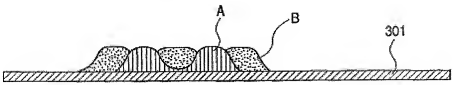
> 20. A wiring forming method comprising:
>
> a first step of supplying a first liquid containing an insulating material on a substrate to form an insulated pattern on the substrate;
>
> a second step of, after the first step, supplying a second liquid containing a conductive material on the substrate to form a first conductive pattern on the same layer that the first insulated pattern has been formed on;
>
> a third step of, after the second step, applying the second liquid on the first conductive pattern to form a second conductive pattern on the first conductive pattern; and

> a fourth step of, after the third step, applying the first liquid on the layer that the first insulated pattern and the first conductive pattern have been formed on to form a second insulated pattern on the same layer that the second conductive pattern has been formed on.

Thus, a first liquid is supplied to form an insulated pattern and a second liquid is supplied to form a first conductive pattern. Together, the insulated and conductive patterns form a lower layer. Since the insulated pattern is deposited first it acts as an insulating edge which prevents shorting between adjacent conducting patterns as shown, for example, by Applicants' Fig. 1 below. In Fig. 1, insulating patterns are represented by (B) whereas (A) shows a conducting pattern, both of which are deposited on substrate (301). If both (A) and (B) are deposited simultaneously there is a higher probability of shorting between adjacent conducting patterns (A) as shown, for example, by Applicants' Fig. 20 which has been reproduced below for the convenience of the Examiner.



[Applicants, Fig. 1].



[Applicants, Fig. 20].

In the third step of new claim 20, an upper layer is formed by applying the second liquid on the conductive pattern of the lower layer to form a second conductive pattern. This is followed by application of the first liquid to form a second insulated pattern. Together, the second conductive pattern and second insulated pattern form the upper layer. Since the

conductive pattern of the upper layer is formed immediately after the conductive pattern of the lower layer, the integrity of the electrical connection between the lower and upper layers can be improved.

Applicants respectfully submit that neither the JP reference nor Seki teach or disclose the wiring forming method as recited in new claim 20. In Figs. 12 and 13, the JP reference appears to disclose deposition of a "non-compatibility film" (105) on a pattern formation face (100) followed by deposition of a conducting film (102). Applicants respectfully submit that the "non-compatibility" film disclosed by the JP reference is merely provided such that "a fluid will not spread more than the gap of the non-compatibility film 105." The JP reference further discloses that "[t]he process of providing the above-mentioned compatibility film and a non-compatibility film may be applied to an insulator layer and other films." [the JP reference, ¶0031].

Applicants respectfully submit that the JP reference does not recognize problems which may arise due to shorting between adjacent conductive patterns and, hence, does not disclose a solution. The "non-compatibility films" disclosed by the JP reference merely prevent the spread of the fluid (102) deposited between them. The JP reference also is not concerned with improving the electrical integrity between a lower and upper layer and, hence, does not teach Applicants' improved wiring forming method which comprises the sequence of four steps as described *supra*. Since the JP reference does not teach or disclose each and every element of new claim 20, Applicants respectfully submit that new claim 20 is not anticipated by the JP reference.

As was noted in Applicants' December 10, 2008 reply, Seki is directed to a thin film formation method when forming banks of a single material. Seki discloses at col. 22, lns. 22-24 that "the objective is to form thin films by filling areas enclosed by banks that constitute

portioning members with a fluid." Applicants respectfully submit that Seki merely discloses filling in the areas enclosed by banks with a fluid and, as was the case for the JP reference, Seki is not concerned with improving the electrical integrity between a lower and upper layer through manipulation of the deposition sequence. Applicants respectfully submit that since Seki does not teach or disclose the four sequential pattern formation steps recited in new claim 22, each and every element of new claim 22 is not present in Seki. An anticipation rejection of claim 22 over Seki is therefore improper.

Accordingly, the JP reference and Seki fail to teach, disclose, or suggest a wiring forming method comprising a "first step of supplying a first liquid containing an insulating material on a substrate to form an insulated pattern on the substrate" and a "second step of, after the first step, supplying a second liquid containing a conductive material on the substrate to form a first conductive pattern on the same layer that the first insulated pattern has been formed on" followed by a "third step of, after the second step, applying the second liquid on the first conductive pattern to form a second conductive pattern on the first conductive pattern" and a "fourth step of, after the third step, applying the first liquid on the layer that the first insulated pattern and the first conductive pattern have been formed on to form a second insulated pattern on the same layer that the second conductive pattern has been formed on" as recited in Applicants' new claim 20. Applicants respectfully submit claim 20 is patentable over the JP reference and Seki for at least this reason. Claims 21 and 22 are deemed patentable by way of their dependency on claim 20. Applicants respectfully submit that all pending claims are now in condition for allowance and early, favorable action in that regard is requested.

Applicants have chosen in the interest of expediting prosecution of this patent application to distinguish the cited documents from the pending claims as set forth above. These statements

should not be regarded in any way as admissions that the cited documents are, in fact, prior art. Likewise, Applicants have chosen not to swear behind the references cited by the Office Action, or to otherwise submit evidence to traverse the rejection at this time. Applicants, however, reserve the right, as provided by 37 C.F.R. §§ 1.131 and 1.132, to do so in the future as appropriate. Furthermore, Applicants have not specifically addressed the rejections of the dependent claims. Applicants respectfully submit that the independent claim from which they depend is in condition for allowance as set forth above. Accordingly, the dependent claims also are in condition for allowance. Applicants, however, reserve the right to address such rejections of the dependent claims in the future as appropriate.

CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is earnestly solicited. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 504827, ORDER NO. 1004288.58900.

Respectfully submitted,
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